

CLAIMS

1. A corneal endothelium-like sheet, comprising:
a collagen layer; and
a cell layer formed on the collagen layer, the cell layer
5 consisting of cells derived from corneal endothelium.
2. A corneal endothelium-like sheet according to claim 1,
wherein the collagen layer is derived from amniotic membrane.
- 10 3. A corneal endothelium-like sheet according to claim 1,
wherein the collagen layer consists of amniotic membrane from which
the epithelium has been removed.
4. A corneal endothelium-like sheet comprising a cell layer
15 consisting of cells derived from corneal endothelium.
5. A corneal endothelium-like sheet according to claim 1,
wherein the cell layer has a monolayer structure.
- 20 6. A corneal endothelium-like sheet according to claim 1,
wherein the cell density of the cell layer is about 2000 cells/mm²
to about 4000 cells/mm².
7. A corneal endothelium-like sheet according to claim 1,
25 wherein the plane view shape of the cells derived from corneal
endothelium is hexagonal.
8. A corneal endothelium-like sheet according to claim 1,
wherein the cells derived from corneal endothelium are arranged
30 regularly in the cell layer.

9. A method for constructing a corneal endothelium-like sheet, the method comprising the following steps:

- 5 a) culturing and proliferating collected corneal endothelial cells;
- b) collecting the proliferated corneal endothelial cells and producing a cell suspension; and
- c) planting the cell suspension on a collagen layer and culturing thereof.

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10. A method for producing a corneal endothelium-like sheet according to claim 9, wherein the following step is carried out after step b):

- 15 b-1) increasing the cell density in the cell suspension using centrifugation.

11. A method for producing a corneal endothelium-like sheet according to claim 9, wherein centrifugation is carried out after planting the cell suspension in step c).

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12. A method for producing a corneal endothelium-like sheet according to claim 9, wherein step c) comprises the following steps:

- c-1) placing a container in a culture container, the container having a bottom surface consisting of a membrane with a pore size capable of allowing a culture solution to pass through;
- 25 c-2) forming a collagen layer on the bottom face of the container;
- c-3) planting the cell suspension on the collagen layer;
- c-4) carrying out centrifugation;
- 30 c-5) culturing.

13. A method for producing a corneal endothelium-like sheet according to claim 9, wherein the collagen layer is derived from amniotic membrane.

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14. A method for producing a corneal endothelium-like sheet according to claim 9, wherein the collagen layer consists of amniotic membrane from which the epithelium has been removed.